Asbestos Removal and Remediation, Redevelopment of a Brownfields Site

The Ludlow Mills Complex, Hampden County, Massachusetts

Submitted by Westmass Area Development Corporation (Westmass), October 28, 2020

1. Applicant Identification:	Westmass Area Development Corporation One Monarch Place, Suite 1350 Springfield, MA 01144 413-593-6421 www.westmassdevelopment.com
2. Funding Requested:	
a. Grant Type:	Multiple Site Cleanup
b. Federal Funds Requested:	$461,510.00
3. Location:	Town of Ludlow, Hampden County, Massachusetts
4. Property Site-Specific Information:	Mill Buildings 44 (**Site 1**); Stockhouse Annex #109A/209A (**Site 2**); Stockhouses #158/258, 160/260-169/269, and 171/271 (**Site 3**) Ludlow Mills, 100 State Street Ludlow, Massachusetts 01056
5. Contacts:	
a. Project Director:	Sarah la Cour Westmass Area Development Corporation One Monarch Place, Suite 1350 Springfield, Massachusetts 01144 413-286-3124 (p) s.lacour@westmassdevelopment.com
b. Chief Executive:	Jeffrey Daley, President & CEO Westmass Area Development Corporation One Monarch Place, Suite 1350 Springfield, Massachusetts 01144 413-593-6421 (p)
6. Population:	Town of Ludlow: 21,103 (2010 Census)

7. **Other Factors Checklist:**

Other Factors	Page #
Community population is 10,000 or less.	1
The applicant is, or will assist, a federally recognized Indian tribe or United States territory.	1
The proposed brownfield(s) is impacted by mine-scarred land.	2
Secured firm leveraging commitment ties directly to the project and will facilitate completion of the project/reuse; secured resource is identified in the Narrative and substantiated in the attached documentation.	3
The proposed site(s) is adjacent to a body of water (i.e., the border of the proposed site(s) is contiguous or partially contiguous to the body of water, or would be contiguous or partially contiguous with a body of water but for a street, road, or other public thoroughfare separating them).	1
The proposed site(s) is in a federally designated flood plain.	1
The reuse of a proposed cleanup site(s) will facilitate renewable energy from wind, solar, or geothermal energy; or will incorporate energy efficiency measures.	2

8. **Letter from the State or Tribal Environmental Authority.** Please see attached letter from the Massachusetts Department of Environmental Protection acknowledging that the applicant plans to conduct cleanup activities and is planning to apply for FY21 federal brownfields grant funds.

Should you require further information, please do not hesitate to contact either Sarah la Cour or myself (contact information above).

Sincerely,

Jeffrey Daley

President/CEO

Commonwealth of Massachusetts
Executive Office of Energy & Environmental Affairs

Department of Environmental Protection

One Winter Street Boston, MA 02108 • 617-292-5500

Charles D. Baker
Governor

Karyn E. Polito
Lieutenant Governor

Kathleen A. Theoharides
Secretary

Martin Suuberg
Commissioner

October 23, 2020

U.S. EPA New England
Attn: Frank Gardner
5 Post Office Square, Suite 100
Boston, MA 02109-3912

Subject: **STATE LETTER OF ACKNOWLEDGMENT**
Westmass Area Development Corporation, Application for EPA Cleanup Grant Funds

Dear Mr. Gardner:

MassDEP is pleased to support the proposal submitted by Westmass Area Development Corporation (Westmass) under the Fiscal Year 2021 U.S. Environmental Protection Agency (EPA) Brownfield Cleanup Grant Program. Westmass intends to use the funding to complete asbestos remediation on twenty mill buildings that are part of the Ludlow Mills project in Ludlow, Massachusetts. Redevelopment of these buildings is anticipated to result in the employment of 2,000-2,500 people and potentially stimulate up to $300 million of private investment. Redevelopment at Ludlow Mills has already resulted in several successes, including the Independent Senior Housing and The HealthSouth Rehabilitation Hospital.

In Massachusetts, state and federal agencies have developed strong partnerships and work together to ensure that parties undertaking Brownfield projects have access to available incentives. MassDEP, through our regional officers, provides technical support to Brownfield project proponents when regulatory issues arise. If this proposal is selected, MassDEP will work with our state and federal partners to help Westmass make this project a success.

I hope that this information is helpful, and please feel free to contact Angela Gallagher at (508) 946-2790 if you have any questions or concerns.

Sincerely,

Paul Locke, Assistant Commissioner
Bureau of Waste Site Cleanup

ec: Sean O'Donnell, Assistant Project Manager, Westmass Area Development Corporation
Caprice Shaw, Brownfields Coordinator, BWSC-WERO

This information is available in alternate format. Contact Michelle Waters-Ekanem, Director of Diversity/Civil Rights at 617-292-5751.
TTY# MassRelay Service 1-800-439-2370
MassDEP Website: www.mass.gov/dep
Printed on Recycled Paper

1. PROJECT AREA DESCRIPTION AND PLANS FOR REVITALIZATION

a. Target Area and Brownfields

i. Background and Description of Target Area

Located in the Town of Ludlow, Massachusetts (population of 21,103 [US Census, 2010]), the target area for this FY21 Brownfield Cleanup Grant request is census tract 8104.03, which includes the historic Ludlow Mills complex and the associated downtown and residential area and is a federally designated Opportunity Zone. This area is approximately one square mile of land bounded by the 50-acre mill complex along the Chicopee River to the south and the Massachusetts Turnpike (Highway I-90) to the north. The area includes approximately 4,018 residents and 1,646 households within the historic mill village. The Mills once employed more than 5,000 people for production of jute yarns, twine, and webbing and were one of the primary economic generators for the region. With the mill closing in the mid-20th century, thousands of jobs were lost and the population shrank as residents relocated in search of new employment. The target area surrounding the Ludlow Mills continues to experience extreme economic hardship compared to the region and state, as well as a continued downward trend of economic and demographic indicators. According to American Community Survey (2013-2018) estimates, the target area has seen a loss of population of 7.3% within just the past 5 years (compared to a population increase of 3.4% across the state as a whole). Median household income for the target area is $46,218 – down 6.7% in the past five years – compared to $77,378 in Massachusetts and $60,293 in the nation, and both of which have seen median incomes increase over the same period. In addition, at 19.8%, the number of individuals living in poverty is almost double that of Massachusetts (10.8%) and has increased by a staggering 54.5% over the past five years. Today, the current owner, Westmass Area Development Corporation (Westmass), oversees the conversion of the 100-year-old historic mill complex into a modern, mixed-use, development which balances residential, commercial, and industrial uses with greenspace and recreational amenities. In addition to becoming a renewed employment center, the Mills are developing into a rejuvenated residential hub with the 2017 conversion of Mill #10 into mixed-income, senior housing as well as the anticipated redevelopment of Mill #8 into an additional 92 senior units. The mill complex currently contains approximately 30 businesses and 300 employees which are mostly healthcare, light industrial, warehousing uses and recreation and hospitality. Westmass is not, nor will assist, a federally recognized Indian tribe or United States territory.

ii. Description of the Brownfield Site(s)

The Ludlow Mills complex is approximately 52 acres and has been identified by the US EPA as a 2020 Brownfields Success Story (EPA 560-F-20-011). The over 100-year old complex runs approximately 1.5 miles along the Chicopee River, placing the site within a federally designated flood plain and has been utilized for various manufacturing operations but primarily textiles and jute. A majority of the extant mill buildings were constructed at the turn of the 20th century and include several 1-8 story, brick and masonry mill buildings containing approximately 1.2 million square feet. Building upon past assessment and remediation efforts, Westmass contracted with O'Reilly, Talbot and Okun Associates, Inc. (OTO) in August 2020 to conduct asbestos assessment and testing in select buildings which are targeted for redevelopment activities. In addition, Westmass analyzed the data from the June 2018 Draft Targeted Brownfields Assessment Report prepared by Nobis Engineering for EPA Region 1 to determine other sources of asbestos contamination as well as a 2017 Tighe & Bond Assessment Report for stockhouse roofs. Three specific sites were identified for ACM abatement and removal:

Building #44 (Site 1): Building #44 is a two-story, brick, 12,000 SF former carpentry shop. Asbestos was identified in resilient floor tiles and in the glazing compounds on the multi-pane, metal framed windows.

Stockhouse Annex #109A/209A (Site 2): Stockhouse Annex #109A/209A is a connecting structure, approximately 4,500 SF. Asbestos was identified within the roofing materials, including black tar paper and roof sealant, across the entire building area.

Stockhouses #158/258, 160/260–169/269, and 171/271 (Site 3): All structures included within Site 3 consist of one-story, masonry buildings. Asbestos was identified within the roof materials of the buildings. In addition, testing revealed that the adhesives in Stockhouses #158/258 and 161/261 contain asbestos and that Stockhouse #161/261 contains asbestos in the ceramic tiles. These proposed Brownfield sites are not impacted by mine-scarred land.

b. Revitalization of the Target Area

i. Reuse Strategy and Alignment with Revitalization Plans

Throughout significant site remediation and redevelopment projects at the mills, the Town of Ludlow has been a fully supportive partner and continues their involvement. Prior to the purchase of the property by Westmass, the **Ludlow Town Master Plan**, prepared in 2009, identified redevelopment of the historic Ludlow Mills complex as a priority goal for economic development, housing, and land use. Many strategies, including rezoning, indicated that providing continued support for developer investment at the mills was imperative to the local economy and future of the town and region. In 2012, the Town of Ludlow Planning Board granted Westmass a Special Permit for the **Comprehensive Plan for the Ludlow Mills Preservation and Redevelopment Project** in accordance with the revised **Town Mill Redevelopment District** within the Zoning Bylaw. In addition, in 2013, the Town approved a **Chapter 40R Smart Growth Overlay District Bylaw** and created a specific Ludlow Mills Mixed-Use Sub-district. This significant zoning change allowed residential uses in the formerly industrially zoned area. Also, the Ludlow Mills Brownfields Redevelopment project has been identified as a regional "High Priority Project" by the **2019 Comprehensive Economic Strategy (CEDS)** prepared by the Pioneer Valley Planning Commission. The Mills' location serves an area identified as meeting US Economic Development Administration Economic Distress Criteria as well as a designated federal **Opportunity Zone**.

ii. Outcomes and Benefits of Reuse Strategy

The cleanup and reuse of Ludlow Mills is projected to result in up to $300 million in private investment and increase the local annual tax revenue by $2 million dollars. Located within an **Opportunity Zone**, the presence of hazardous material hinders the interest of developers and their lenders. Removing all identified asbestos containing materials as part of a comprehensive environmental cleanup is necessary to allow for private investment in adaptive reuse and redevelopment. Massachusetts Regulations (453 CMR 6.00) require asbestos be removed from buildings that are going to be adaptively reused or demolished. In the case of Building #44 (**Site 1)**, adaptive reuse of the building is being proposed by an interested developer due to its architectural quality and proximity to the River. Demolition is anticipated for **Site 2** due to the deterioration of the stockhouse annex as well as anticipated for the Stockhouse buildings in **Site 3** to make way for a proposed private indoor and outdoor recreational facility. All retained buildings within the mill complex will be considered for roof-top solar installation and other energy efficiency measures. In a 2018 report completed by Green Earth Energy, Ludlow Mills' stockhouse buildings were reviewed for their solar potential. Once all ACM have been removed, future roofing systems will be selected with solar capacity in mind.

c. Strategy for Leveraging Resources

i. Resources Needed for Site Reuse

The cleanup work proposed under this EPA grant will directly leverage over $16.5 million in new private. Building #44 is currently being considered for redevelopment to transform the building into a restaurant and offices with a potential $2 million investment (Attachment G). The stockhouses in Site 3 are part of a proposed $10 million private investment in an indoor/outdoor recreational facility. The facility would be located directly adjacent to a proposed microbrewery anticipated to begin construction prior to Spring 2021 representing a $4.5 million investment. In order to enhance marketing opportunities for redevelopment, Westmass was the recipient of a FY20 $80,000 **MassDevelopment Site Readiness Grant** (Attachment H). The funds are being used to create a Market Analysis and Land Build-Out Plan for the Ludlow Mills that will help inform redevelopment activities within the complex. To complement these grant funds, the Town of Ludlow has established a **District Improvement Financing (DIF)** district around the Mills to leverage future tax revenues for short-term infrastructure needs. In addition, Massachusetts offers several funding programs which may be used to aid the remediation and redevelopment of these sites. The **Massachusetts Brownfield Program** through MassDEP provides technical assistance and financial incentives for cleanup and redevelopment of contaminated properties. MassDevelopment offers remediation grant funds through the **Brownfields Redevelopment Fund**. Private investment opportunities will also be pursued through advertising of building sites ready for redevelopment along with incentive programs – e.g. the Massachusetts **Brownfields Tax Credit Program** or the **Brownfields Redevelopment Access to Capital (BRAC) Program** – that may help facilitate site reuse.

ii. Use of Existing Infrastructure

The three sites planned for redevelopment will be critically supported with recent infrastructure upgrades made to service the Ludlow Mills property. The Town of Ludlow completed extensive state-funded reconstruction of public water and sewer infrastructure and roadway pavement and sidewalk surfaces along State Street and First Ave bordering the Mill property. In addition, the Ludlow Mills complex is served by Colombia Gas connections and Verizon and Charter Communications lines. An Eversource distribution line runs through the mill complex.
In 2019, the Town of Ludlow, in partnership with Westmass, received $6.6 million in grant funds from the MassWorks Infrastructure Program and the US Department of Commerce Economic Development Administration (EDA) to construct a 4,200 linear foot roadway and associated infrastructure within the mill complex to advance revitalization efforts. Once completed, Riverside Drive will become a public way and will provide key frontage, access and infrastructure for the continued redevelopment of the property.

2. COMMUNITY NEED AND COMMUNITY ENGAGEMENT

a. Community Need

i. The Community's Need for Funding

The underutilization of the Mill complex for decades has negatively affected the local community and surrounding area. Following the closure of the Mills in the mid-20th century and the subsequent loss of employment and tax revenues, the community became incredibly strained to maintain municipal services. The financial burden of such a large (and predominantly vacant) mill property continues to pose economic challenges to both Westmass and the Town of Ludlow. Increased policing is needed on the site due to the large number of vacant buildings and adjacent woodland areas. Particularly, during this year's COVID-19 pandemic, we have seen a significant uptick in the frequency of break-ins and vandalism on the site, requiring increased surveillance

and police presence. Also, due to the Mills' aging infrastructure, failures of the fire suppression systems frequently occur requiring regular visits by the Ludlow Fire Department. Combining the reduced tax revenue with the increased cost burden of necessary municipal services, the Town of Ludlow continues to struggle to make large financial investments in the target area. The presence of hazardous materials on the site only further compounds the challenge of attracting new investment. It also hinders the community's goal of the site eventually becoming once again a major contributor to the local tax base, rather than be an ongoing expense and liability.

ii. Threats to Sensitive Populations

(1) Health or Welfare of Sensitive Populations

The redevelopment of the mill complex hinges on the cleanup of all asbestos, located within many buildings' roofing materials as well as on interiors including window glazing and floor tiles. If this situation is not addressed the asbestos will become friable and pose a risk to senior residents, families, workers, and other visitors of the property. Asbestos present at Ludlow Mills is known to cause asbestosis and various forms of cancer. Removal of this hazardous material will remove a direct health threat to the people who are currently employed by the 30 active businesses at the mill complex, the 55+ senior residents living on site at the Residences at Mill 10, residents in the surrounding residential neighborhoods, workers and patients at the Encompass Rehabilitation Hospital and those visiting the Riverwalk for recreation and working in the downtown area.

(2) Greater Than Normal Incidence of Disease and Adverse Health Conditions

In 2019, Health New England completed its Community Health Needs Assessment which included Ludlow as one of the 20 largest communities in its service area. Ludlow was found to have the second highest rate of **premature birth** and **low birth weight**, just behind the neighboring City of Springfield. **Air pollution** is shown to have a significant impact on Ludlow and across Hampden County due to a variety of mobile and point sources, with risk of **cancer** from breathing air toxins being 80% higher than the state. Already Massachusetts has one of the highest rates of **asthma** within the United States; in 2015, 10.2% of Massachusetts residents reported having asthma compared to 9.2% of individuals in the nation (2017 State Health Needs Assessment). The prevalence in Massachusetts children was as high as 12.9%. Air pollution impacts the morbidity of several chronic diseases that have a high prevalence in Hampden County, including asthma and **cardiovascular disease**, which recent studies have suggested is associated with poor air quality in the region. As roofs and building structures at the Ludlow Mills continue to deteriorate, the emission of toxins related to asbestos contamination could rise.

(3) Disproportionately Impacted Populations

The high level of **poverty** within the target area (19.8%) compared to that of the rest of Massachusetts (10.8%) and other economic factors are what led to the creation of an Opportunity Zone around the Ludlow Mills Brownfield Site. **Median household income** in the target area is nearly half that of Massachusetts ($46,218 compared to $77,378) and **median housing value** is even lower, just 47% that of the state ($172,700 compared to $366,800). **Per capita income** is similar with individuals in the target area making just $22,526, compared to $41,794 in Massachusetts (46% lower). Compounding the threat to vulnerable populations is the comparatively low rate of individuals with **health insurance coverage**. 6.1% of individuals within the target area are without health insurance, which is more than double that of the county (3.0%) or the state (2.8%). Of those making less than $25,000, a staggering 18.1% of residents in the target area are without health insurance. The once significant **disinvestment** in the target area (including the closure of the Mills several decades ago), has contributed to the ongoing issues of

low property values and access to well-paying jobs. Disinvestment is also reflected in the **loss of population** (-7.3%) within the past 5 years even as the state population continues to grow. To help reverse these trends, Westmass continues to try to attract new investment and removing blight. Unfortunately, the presence of asbestos poses a barrier to attracting development interest.

b. Community Engagement

i. Project Involvement and ii. Project Roles

Westmass is a community-based business organization committed to improving the economy of the Pioneer Valley in Western Massachusetts. Together we work with many local community partners on the redevelopment of the Ludlow Mills brownfield site, including the following:

Project Partner	Point of contact	Specific role in the project
Town of Ludlow	Ellie Villano, Town Administrator (413) 583-5600 ext. 1200	The Town of Ludlow – including its various boards, commissions, and staff – are integral partners in this cleanup effort and are directly involved in the permitting and approvals process for reuse and redevelopment activities on the site.
Economic Development Council (EDC) of Western Massachusetts	Rick Sullivan, President & CEO r.sullivan@ westernmass edc.com (413) 755-1300	The EDC will continue to be an essential partner in helping Westmass disseminate information regarding cleanup activities, as well as working with the local Chambers of Commerce to help market sites for redevelopment.
MassHire Workforce Board	David M. Cruise (413) 755-1362	Westmass will continue to work together with the MassHire on tracking benefits of the project in the form of job creation and retention.
Pioneer Valley Planning Commission (PVPC)	Becky Basch, Senior Planner bbasch@ pvpc.org (413) 781-6045	PVPC, the regional planning agency for Hampden and Hampshire County, is a valuable resource of regional social, economic, and health data in and monitors the regional impacts of redevelopment activities.
Local Elected Officials	Tom Petrolati, State Representative (617) 784-5151 Eric Lesser, State Senator (413) 526-6501 Congressman Richard Neal (413) 785-0325	Westmass is fortunate to have the continued support our local elected officials. The Ludlow Mills project has received continuous broad support at the local, state and federal levels. Our consortium of local elected officials are valuable advocates for Westmass' work and will continue to help identify new redevelopment opportunities and funding sources to complement all cleanup activities.

iii. Incorporating Community Input

Westmass will involve the community by: (1) preparing a plan to involve key stakeholders in cleanup activities where appropriate; (2) establishing an information repository at the Ludlow Mills with backup at Westmass office in Springfield and on the westmassdevelopment.com website; (3) engaging the tenants of the affected buildings within the Ludlow Mills Complex; (4) posting public notices in various locations, including online, for all public meetings and invite

stakeholders and local residents to attend; and (5) holding a public meeting remotely to convey information and answering questions regarding all cleanup activities. All community participation methods have and will continue to be designed to ensure remote participation access and safe social distancing protocols. Westmass publicized its intent to seek EPA Brownfields Cleanup funding for asbestos abatement and removal at the Ludlow Mills in both the local newspaper and on its website (Attachments B and C). Westmass remotely held a community wide public meeting to review the pending grant application and the Draft Analysis of Brownfield Cleanup Alternatives (ABCA) (Attachment D) for the proposed cleanup. Westmass did not receive any comments on the ABCA. Upon award, Westmass will hold a post-award public meeting to solicit comments, distribute the cleanup plan and request input by businesses utilizing space at the mill complex as well as other stakeholders including the MassDEP, MDOS, Ludlow Board of Health and Ludlow Building Commissioner.

3. TASK DESCRIPTIONS, COST ESTIMATES, AND MEASURING PROGRESS

a. Proposed Cleanup Plan

Grant funds are being requested for the cleanup of ACM within specific sites at the Ludlow Mills, Building #44 (**Site 1**), Stockhouse Annex 109A/209A (**Site 2**), and Stockhouses #158/258, 160/260–169/269, and 171/271 (**Site 3**) in order to further revitalization activities at these locations. As part of the overall Comprehensive Plan for the Ludlow Mills, the cleanup of these sites is integral to securing private investment for redevelopment. Mill Building #44 (Site 1) has attracted a developer interested in its adaptive reuse as a restaurant. The select stockhouses at Sites 2 and 3, because of their dilapidated condition, do not lend themselves to adaptive reuse in a way that would be economical for a developer. Removal of the annex buildings (e.g. Site 2) and demolition of stockhouses (including those in Site 3) are consistent with the long-term vision for the Ludlow Mills. Based on the Draft ABCA, the most effective method to eliminate risk at the site is the complete removal and proper offsite disposal of all ACM. This will eliminate exposure pathways during demolition and redevelopment work and for current tenants, senior residents of Mill 10 and future residents of Mill 8, and recreational users of the site. Cleanup for this project involves Westmass hiring an environmental engineering firm with the appropriate qualifications to prepare an Asbestos Removal Cleanup Plan including a Health & Safety Plan which will meet all EPA and MassDEP requirements. The prepared Cleanup Plan will follow current EPA standards for a QAPP and a draft will be submitted to the EPA and the MassDEP for review and approval. Copies of all documents will be placed in a Project Information Repository accessible to the Public. The asbestos removal and offsite disposal will occur as part of the overall redevelopment of the site property. The abatement contractor will remove all ACM, as much as possible intact, and bag and seal for proper disposal offsite.

b. Description of Tasks/Activities and Outputs

i. Project Implementation, Anticipated Project Schedule, Task/Activity Lead, and Outputs

Task 1: Cooperative Agreement Oversight	
i. Project Implementation	• Westmass will conduct overall project coordination and oversee the Cooperative Agreement with EPA and will conduct a competitive and open selection process for the procurement of a Qualified Environmental Professional (QEP) following public bidding rules. • The QEP will prepare all Asbestos removal plans; will develop an EPA standard QAPP and ACM abatement and post abatement demolition scope, a Public Bid package and conduct the competitive Public Bid

	Process for Abatement Contractor selection; and will make a recommendation to Westmass for the Abatement Contractor
ii. Schedule	Procurement of the QEP and Abatement Contractor to be completed within 1 to 3 months of award, and ongoing through project completion.
iii. Task Lead	Sarah la Cour, Westmass Project Manager and QEP
iv. Outputs	Final executed Cooperative Agreement; Quality Assurance Project Plan (QAPP); and project progress reports submitted to ACRES database
Task 2: Community Outreach & Engagement	
i. Project Implementation	• Westmass will hold a pre-project public meeting with the QEP to prepare the Community Involvement Plan and notify all appropriate parties in writing of the scheduled cleanup The QEP will conduct frequent visits, engage in public outreach particularly with the businesses at the Ludlow Mills and finalize ABCA with their input.
ii. Schedule	Ongoing throughout the project.
iii. Task Lead	Sarah la Cour, Westmass Project Manager and QEP
iv. Outputs	Creation of a Community Involvement Plan and final ABCA
Task 3: Site-Specific Activities	
i. Project Implementation	• The abatement contractor licensed by the MADOS will execute all cleanup activities; follow the approved plan; isolate where the asbestos removal is taking place with sheets of plastic; and will provide showers and throwaway protective suits to prevent contamination of workers, disposal and building demolition after abatement. All work will be completed in accordance with State (MADOS and MassDEP) and federal requirements. • Air quality monitoring on-site will be conducted during cleanup.
ii. Schedule	To begin within 3 months of award and continuing for 6 months.
iii. Task Lead	Abatement Contractor with oversight and independent monitoring to be overseen by selected QEP.
iv. Outputs	Full asbestos abatement of the three sites
Task 4: Oversee Site Cleanup	
i. Project Implementation	• Westmass will track and report the outputs and outcomes of the cleanup; the amount of private investment made in the site once the asbestos is removed; the amount of tax revenues raised as a result of the reuse of this historic mill complex; and the number of jobs created. All reporting will be made available on the EPA's ACRES database. • Cleanup Oversight will be performed by the QEP
ii. Schedule	Concurrent with Task 3.
iii. Task Lead	Sarah la Cour, Westmass Project Manager and QEP
iv. Outputs	Cleanup Completion Reports & other data submitted to ACRES database

c. Cost Estimates

i. Development of Cost Estimates, Application of Cost Estimates, and Eligibility of Cost Share Activities

Task 1: Cooperative Agreement Oversight

Personnel: Preparation of procurement documents, and overall project coordination.

Senior Project Manager at $90/hr for 32 hours = **$2,880.00**

Assistant PM at $75/hr for 38.5 hours = **$2,887.50**

Supplies: Total cost of **$250.00** for printing materials.

Contractual: Qualified Environmental Professional (QEP) at $215/hr for 25 hours = **$5,375.00** for the preparation of asbestos removal plans, QAPP, and procurement of abatement contractor.

Task 2: Community Outreach & Engagement

Personnel: Preparation of the pre-project public meeting, Community Involvement Plan, and engagement with the QEP and stakeholders at the project sites.

Senior Project Manager at $90/hr for 32 hours = **$2,880.00**

Assistant Project Manager at $75/hr for 38.5 hours = **$2,887.50**

Supplies: Total cost of **$2,500.00** for printing materials.

Contractual: Qualified Environmental Professional (QEP) at $215/hr for 25 hours = **$5,375.00** for regular site visits, public outreach, and the finalization ABCA with input from the public.

Task 3: Site-Specific Activities

Personnel: Total cost of **$4,500.00** for project oversight and coordination with project partners, businesses, and other affected stakeholders, as well as reporting on project activities.

Senior Project Manager at $90/hr for 10 hours = **$900.00**

Assistant Project Manager at $75/hr for 48 hours = **$3,600.00**

Contractual: Total cost of **$414,000.00**

Abatement Contractor: Total contract of **$392,500**

Site 1: Abatement of Building #44 for the lump sum price of **$34,750.00**. Includes:

- 700SF of resilient flooring tiles (12'x12' white green and yellow)
- 40 multi-pane windows with ACM-containing exterior window glazing (8'x9')

Site 2: Abatement of Stockhouse Annex #109A/209A for total price of **$24,750.00**

- 4,500SF of asbestos containing roofing materials (black tar, paper, and roof sealant) at $5.50 per SF = **$24,750.00**

Site 3: Abatement of Stockhouses # 158/258, 160/260-169/269, and 171/271 for total price of **$333,000**

- 55,400SF of asbestos containing roofing materials (black tar, paper, and roof sealant) (includes entire roof area of Stockhouses # 160/260, 162/262, 164/264, 166/266, 168/268. 169/269, and 171/271) at $5.50 per SF = **$304,700.00**
- 600SF total of ACM on roof top vents, roof penetrations and parapet walls, as well as 2,000SF of ACM roof cement identified in Stockhouses #161/261. 163/263, and 165/265) for lump sum of **$26,000.00**
- 25LF of ACM exterior caulking on Stockhouse #158/258 at $92 per LF = **$2,300.00**

Qualified Environmental Professional (QEP) at $215/hr for 100 hours = **$21,500.00** for oversight of all cleanup activities by the licensed abatement contractor.

Task 4: Oversee Sight Cleanup

Personnel: Total cost of **$6,975.00** for tracking and reporting outputs and outcomes of all cleanup activities to EPA's ACRES database.

Senior Project Manager at $90/hr for 40 hours = **$3,600.00**

Assistant Project Manager at $75/hr for 45 hours = **$3,375.00**

Supplies: Total cost of **$250.00** for printing.

Contractual: Qualified Environmental Professional (QEP) at $215/hr for 50 hours = **$10,750.00** for remainder of project oversight and closeout of cleanup activities.

Westmass is respectfully requesting a hardship waiver (Attachment F). If for any reason the hardship waiver is not approved, Westmass will unfortunately not be able to commit financially to the cost share towards the proposed cleanup work. However, Westmass would be willing to dedicate in-kind professional staff time to help oversee and manage the project.

The direct and indirect costs associated with each of the four tasks are presented in the table below:

Budget Categories		Project Tasks ($)				
		Task 1	Task 2	Task 3	Task 4	Total
Direct Costs	Personnel	$5,767.50	$5,767.50	$4,500.00	$6,975.00	$23,010.00
	Fringe Benefits					
	Travel					
	Equipment					
	Supplies	$250.00	$2,500.00		$250.00	$3,000.00
	Contractual	$5,375.00	$5,375.00	$414,000.00	$10,750.00	$435,500.00
	Other					
Total Direct Costs		$11,392.50	$13,642.50	$418,500.00	$17,975.00	$461,510.00
Indirect Costs						
Total Federal Funding		$9,114.00	$10,914.00	$334,800.00	$14,380.00	$369,208.00
Cost Share		$2,278.50	$2,728.50	$83,700.00	$3,595.00	$92,352.80
Total Budget		$11,392.50	$13,642.50	$418,500.00	$17,975.00	$461,510.00

d. Measuring Environmental Results

Anticipated environmental results of the project include all sites included in this application being free from hazardous materials, thereby supporting a cleaner, healthier environment within the target area. By cleaning these sites, Westmass is positioning these buildings and the entire Ludlow Mills site for future redevelopment. Outside of the regular reporting, Westmass will comprehensively assess costs and potential outcomes of this Cleanup Plan. This will require a Cleanup Planning / Rehabilitation & Redevelopment Study. Progress toward achieving outcomes at the proposed sites will be tracked and evaluated by measurable outcomes including: investigating the market for feasible adaptive reuse opportunities, an inventory to identify all hazardous materials on the total floor areas, a cost estimate for the Cleanup Plan, and significant public input and reporting throughout the entire process.

4. PROGRAMMATIC CAPABILITY AND PAST PERFORMANCE

a. Programmatic Capability

i. Organizational Structure and ii. Description of Key Staff

Westmass has a long and successful history of utilizing both federal and state grant funding to complete redevelopment projects and the President/CEO and Project Managers together have over 40 years of experience in redevelopment projects, financial and project management. Westmass has financial and accounting systems in place to track current projects and will set up a separate account to track all expenditures of the EPA cleanup grant. A system for review and approval of all payment requests from consultants and contractors as cleanup proceeds will be established. Westmass has experience with issuing Request for Proposals (RFP) to procure a QEP via a competitive procurement process in accordance federal regulations and will issue an

Invitation for Bids (IFB) to hire licensed asbestos abatement contractor in accordance with federal regulations.

Sarah la Cour, Senior Project Manager, will serve as the Project Manager for this cleanup grant. Sarah has over 25 years of experience as a project manager and is proficient in all aspects of project management and planning including knowledge of regulations related to development and permitting at the municipal, state, and federal levels. As Project Manager she will be supported by **Sean O'Donnell, Ludlow Mills Leasing Manager and Assistant Project Manager** for other Westmass projects. Sean is a planner with 5 years of experience in mill redevelopment and adaptive reuse. **Jeff Daley, President/CEO** will provide corporate oversight for the grant. Jeff has over 15 years of experience in real estate development, public-private partnership development, construction project development, and government relations.

ii. Acquiring Additional Resources

Westmass has a proven procurement process already in place that has been utilized on three previous rounds of EPA Brownfield Cleanup grants. Westmass will hire a QEP within the first quarter of this award. Procurement will include the preparation and distribution of a Request for Proposals (RFP), ranking of the proposal by Westmass staff, and interview with candidates as part of the hiring process. The QEP as well as licensed abatement contractor(s) will be procured following all state and federal procurement requirements.

b. Past Performance and Accomplishments

i. Currently Has or Previously Received an EPA Brownfields Grant

(1) Accomplishments

The completion of the $28,500,000 LEED Gold Certified Encompass Rehabilitation Hospital at Ludlow Mills is a direct result of previous EPA funding for the **Phase I & II ESAs**. Westmass efficiently and successfully expended the funds from an **EPA FY12 Brownfield Cleanup Grant** for the abatement and removal of the discontinued, oil-fired steam heating system. Westmass was also successful in receiving two $200,000 **FY13 EPA Brownfield Cleanup Grants** for Transite Abatement and Removal projects from buildings #286-291 & #292-296. In addition, Westmass secured grant funding of $1.5 million for environmental remediation from the state of Massachusetts to successfully remediate 43 areas of Recognized Environmental Concern (RECs) at the Ludlow Mills. In the **FY15 Brownfield Cleanup Grant** round, Westmass was awarded funds for the abatement and removal of asbestos in two connecting structures of Mill #10, which led to its redevelopment into 75 senior apartment units. Cleanup efforts as part of the Ludlow Mills Preservation and Redevelopment project have so far generated approximately **$50,000,000** in private and **$5,200,000** in public investments.

(2) Compliance with Grant Requirements

Westmass has successfully completed four recent EPA funded Brownfields Cleanup Grants (FY12, two in FY13, and FY15) which involve timely reporting compliant with the approved work plans, schedule, and executed terms and conditions. Westmass has a solid history of timely and acceptable quarterly reports and other grant deliverables as well as continuing to update the ACRES reporting database. All grant funds awarded by EPA have been totally expended.

ATTACHMENT A: FY21 Brownfield Cleanup Grant -Threshold Criteria Response

1. Applicant Eligibility

Westmass Area Development Corporation, (Westmass) is a 501c(6) non-profit community development organization eligible to receive EPA Brownfield Cleanup Grant Funding. (Attachment D)

2. Previously Awarded Cleanup Grants

The sites at the Ludlow Mills complex proposed for cleanup under this EPA Brownfield Cleanup Grant application have not been the recipient of EPA Cleanup Grant funds in the past. However, Westmass has received three previous Brownfield Cleanup Grants for several other sites within the historic mill complex property that include mill buildings and associated infrastructure.
A detailed listing of sites included in previous grants is as follows:

- **A.** EPA FY12 Brownfields Cleanup grant funds were used to abate and remove hazardous materials, including asbestos, for the decommissioned central steam heating system at the mills specifically located in Mill buildings numbered 101-132 and the basement of Mill #8;
- **B.** EPA FY13 Brownfield Cleanup grant funds were used for the abatement and removal of hazardous materials, including asbestos, on two, multiple-unit Storehouse Buildings numbered 286-291 & 292-296;
- **C.** EPA FY15 Brownfield Cleanup grant funds were used for the abatement and removal of hazardous materials, including asbestos, in two connecting structures between Mill #8 and Mill #10 and between Mill #10 and Mill #11.

3. Site Ownership

The Ludlow Mills complex was purchased by Westmass Area Development Corporation from Ludlow Industrial Realties, Inc. on August 24, 2011. At that time, the property was registered land in the Massachusetts Land Court, Hampden County Registry of Deeds, document #189050 in certificate #34897. The property is no longer registered land but is under a deed recorded on May 9, 2012 in Book 19251 Page 44. This ownership is the same for all sites under this application.

4. Basic Site Information

A. Sites:

1. **Mill Building #44 (former Carpentry Building)** - located in the south/central portion of the complex along the Chicopee River off of the current mill access road. This building is currently vacant.
2. **Stockhouse Annex Building #109A/209A**- located in the central portion of the complex within the middle row of stockhouses. This building is currently leased to Nostalgia TransAm.

3. **Stockhouse Building #s158/258; 160/260-169/269; 171/271**- located in the eastern end of the mill complex west of First Ave. Of these buildings, 161/261, 163/263 and 168/268 are currently leased to America's Box Choice, 166/266 are leased to Homeward Vets and the others are vacant.

B. Address: 100 State Street, Ludlow, MA 01056 (Hampden County)- for the entire mill complex.

C. Current Owner: Westmass Area Development Corporation owns all of the above sites.

5. Status and History of Contamination at the Site

A. Hazardous Substances: Asbestos

1. **Mill Building #44-** asbestos containing floor tiles and window glazing were identified in this building.
2. **Stockhouse Annex #109A/209A-** the roof on this building was identified as containing asbestos in the sealant, paper and black tar.
3. **Stockhouse Building #s158/258; 160/260-169/269; 171/271-** asbestos was identified in these buildings in the roofing sealant, paper and black tar as well as in floor tiles.

B. Operational History and current Use: The site has been used for various manufacturing operations over the past 150 years to create gun barrels, textiles and jute. The historic mill buildings currently remaining on the property were part of the Ludlow Mills jute manufacturing company that operated on the premises from the late 19th century until the middle of the 20th century. The mill complex is currently utilized by a mix of small light industrial companies, storage warehouse operations and brewery operations that lease space from Westmass.

1. **Mill Building #44** was formerly the Carpentry shop.
2. **Stockhouse Annex 109A/209A** was historically used for storage of the jute manufactured in the mills.
3. **Stockhouse #s158/258; 160/260-169/269; 171/271** were historically used for storage of the jute manufactured in the mills.

C. Known Environmental Concerns: Phase I and Phase II Environmental Site Assessments (ESA) were completed in 2009 and 2011. 18 locations of Recognized Environmental Concerns (REC's) were identified within the historic mill complex in the Phase II ESA. The majority of these REC's have been cleaned up under a MA EOEEA $1.5 million State funded site remediation grant. The final Release Action Outcome (RAO) for those cleanup activities was submitted to MA DEP. Roofing materials including black tar, paper, roofing sealant and other Asbestos Containing Materials (ACM) have been identified within the roofs on buildings in the two of the three sites located within the mill complex. Other ACM materials including floor tile and window glazing, are also present within the buildings at the three sites.

Known releases at the Ludlow Mills property identified in the Phase I and Phase II ESAs include releases of polychlorinated biphenyl (PCB) from transformers, #6 fuel oil from the use and storage of heating oil, and diesel fuel from a delivery truck. Releases of PCBs were concentrated around electrical substations to the north of Mill building 10 and on the Chicopee River bank. Contaminated soil that was accessible at the time was removed from these areas, however, residual contamination remained underneath the substations and an Activity and Use Limitation (AUL) is in place in order to limit exposure should the contaminated soil be disturbed. The AUL was terminated in 2014. Historically, several releases of fuel oil were reported near stockhouse #205, which served as the Boiler Building, as a result of filling operations of the two 15,000-gallon fuel oil underground storage tanks (USTs) used for fuel oil storage. Soil in the immediate area around the tanks was excavated and impacted water in storm drains was cleaned up. The two USTs were removed in April 2012.

D. The REC's were related to activities that occurred prior to the acquisition of the Ludlow Mill Complex by Westmass. They involve previous industrial uses of the property as a jute manufacturing facility, the illegal disposal of hazardous materials, and the existence of an up gradient gasoline station adjacent to the Ludlow Mills complex. Previous investigation by environmental engineers, Cardno/ATC, Inc., as well as previous reports by O'Reilly, Okun & Talbot Associates retained by Westmass revealed numerous instances of Asbestos Containing Materials (ACM), both on the exterior and interior of buildings in the Ludlow Mills Complex. The ACM that is the subject of the three sites in this EPA Brownfield Cleanup Grant application is within the roofing materials of Stockhouses Annex 109A and the Stockhouses at the eastern end, as well as ACM materials including window glazing and floor tiles associated with Mill Building #44 and some of the stockhouses in the eastern end.

6. Brownfields Site Definition

A. None of the three sites are listed or proposed for listing on the National Priorities List;
B. None of the three sites are subject to unilateral administrative orders, court orders, administrative orders on consent, or judicial consent decrees issued to or entered into by parties under CERCLA;
C. None of the three sites are subject to the jurisdiction, custody, or control of the United States government.

7. Environmental Assessment Required for Cleanup Proposals

A Phase II Environmental Site Assessment dated June 2011 was conducted by Advanced Environmental Solutions, Inc. (AES) and for the US Environmental Protection Agency (EPA) Region 1. The Environmental Assessment involved on-site and records investigations as well as and soil and ground water sampling and analytical laboratory testing. A Remediation Plan (excluding asbestos contamination) meeting Massachusetts Contingency Plan cleanup requirements was prepared by O'Reilly, Talbot and Okun Associates, Inc. (OTO) for the REC's identified in the Phase II report.

In June 2018, Nobis Engineering, Inc. prepared a Targeted Brownfields Assessment Report (EPA Task Order No. 0108-SI-BZ- 0010) to assess hazardous and/or regulated materials that

would require abatement or special handling prior to building renovation or demolition. Nobis' evaluation revealed numerous instances of ACM within 30 mill building roof materials including roof sealant, underlayment, roofing tar, roofing paper, rolled roofing/roll-on shingles, and modified bituminous patches.

An September 2017 Assessment Report from Tighe & Bond Environmental Specialists also analyzed roofing materials for stockhouse buildings in the eastern portion of the site.

In August 2020, O'Reilly, Talbot & Okun Associates, Inc. conducted an asbestos and hazardous materials assessment for select mill buildings including **Mill Building #44, Stockhouse annex #109A/209A, and Stockhouses #s158/258; 160/260-169/269; 171/271** scheduled for redevelopment activities.

8. Enforcement or Other Actions

Westmass entered into a consent agreement with the Massachusetts Department of Environmental Protection which required the conversion of the existing oil-fired heating system to natural gas and required the removal of existing fuel oil storage tanks and piping in 2012. Westmass agreed to prevent any future releases of fuel oil. These fuel oil tanks have been removed through a Massachusetts Executive Office of Energy and Environmental Affairs (EOEEA) site remediation grant. Previous releases occurred prior to the acquisition by Westmass of the Ludlow Mills Complex and these have been identified and documented in the Phase I and Phase II ESA reports.

There are currently no other known enforcement actions associated with the three sites- **Mill Building #44, Stockhouse annex #109A/209A, and Stockhouses #s158/258; 160/260-169/269; 171/271.**

9. Sites Requiring a Property-Specific Determination

No property specific determination is required. None of the three sites in the Ludlow Mills are:

- Listed or proposed to be listed as a property subject to CERCLA;
- Subject to administrative or judicial orders or consent decrees issued by the US or Massachusetts under RCRA, FWPCA, TSCA or SDWA;
- Subject to RCRA corrective actions;
- Subject to RCRA closure or to closure requirements specified in a closure plan or permit;
- Subject to PCBs that are subject to TSCA remediation; or
- Receiving clean up funding from the LUST program.

10. Threshold Criteria Related to CERCLA/Petroleum Liability

A. Property Ownership Eligibility: Hazardous Substance Sites

1. Landowner Protections from CERCLA Liability

Westmass purchased the property after an AAI-ASTM Phase I ESA meeting All Appropriate Inquiry Standards and an ASTM Phase II ESA were conducted.

Westmass did not contribute to and is not liable for any contamination on any of the three sites.

a) Bona Fide Prospective Purchaser Liability Protection

i. Information on the Property Acquisition

Westmass acquired the Ludlow Mills premises from a private entity known as the Ludlow Industrial Realties, Inc. on August 24, 2011. The premise was registered land in the Massachusetts Land Court. The sale was a negotiated sale between the private parties which lead to Westmass acquiring fee simple title to the premises and being sole owner through a Massachusetts quitclaim deed at closing. Westmass and the former owner, Ludlow Realties, Inc. has had no familial, contractual, corporate, or financial relationships prior to this acquisition. As part of Westmass' acquisition of the premises, Ludlow Realties, Inc. has provided Westmass with a mortgage on the property.

ii. Pre-Purchase Inquiry

- AAI ASTM Phase I Environmental Site Assessment (ESA) issued in August of 2011 was conducted by Advanced Environmental Solutions, Inc. (AES). This document was prepared for Westmass Area Development Corporation. That document updates an AAI ASTM Phase I ESA previously prepared for the US Environmental Protection Agency (EPA) dated March, 2009. In addition, AES prepared a Phase II ESA for the Property with an issuance date of August 2011. The Phase II ESA was prepared for US EPA Region 1 as well.
- The Phase I ESA activities were conducted in accordance with Code of Federal Regulation (40 CFR) part 312 for All Appropriate Inquires (AAI) and ASTM Standard Practice E1527-05 ("Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process").
- The Phase II ESA activities were conducted in accordance with ASTM Standard Practice E1903-97 (*"Standard Guide for Environmental Site Assessments: Phase II Environmental Site Assessment Process")*.
- The Phase II completed in June 2011 as well as the Initial Phase I issued dated March 2009 was prepared for the US Environmental Protection Agency (EPA) Region 1 as part of an EPA Targeted Brownfield Technical Assessment.
- US EPA Region 1 has provided significant technical assistance in support of Westmass' efforts. Information and findings contained in these technical reports greatly assisted the evaluation / decision process by Westmass to acquire the property and undertake the adaptive use and redevelopment of this regionally significant Brownfields site.
- Advanced Environmental Solutions, Inc. (AES) performed the Phase I and Phase II ESA's. AES is a qualified Environmental Engineering firm selected by US EPA Region 1. AES conducted the ESA's and prepared reports in accordance with the Massachusetts Contingency Plan and EPA requirements.

- The Original Phase I Environmental Site Assessment (ESA) dated March 2009 was updated in August 2011. This update occurred within 180 days prior to Westmass' acquisition of the property in order to take advantage of the bona fide prospective purchaser, innocent landowner, or contiguous property owner provision.

iii. Timing and/or Contribution toward Hazardous Substances Disposal

Westmass did not dispose of hazardous substances at the site before or after it acquired the property. Westmass purchased the property after a Phase I ESA meeting All Appropriate Inquiry Standards and a Phase II ESA were completed under the US Environmental Protection Agency (EPA) Targeted Brownfield Assessment Program (Funded by EPA Region 1). Westmass did not contribute to and is not liable for any contamination on any of the three sites.

iv. Post-Acquisition Uses

Westmass acquired the Ludlow Mills on August 24, 2011. At the time of acquisition, there were 37 tenants occupying approximately 500,000 square feet of building area. The uses ranged from a cellular phone tower, to unheated storage, to machine shops, woodworking and distribution.

The 32 tenants and associated uses which are currently leasing space at Ludlow Mills from Westmass as of the date of this application, October 28, 2020 are listed here:

Ludlow Mills - Businesses Active at the Mill, October 28, 2020

Company	**Business**
Abdow Corporation	Document Storage
Alico	Construction Equipment
America's Box Choice	Packaging Materials
AMR, Inc	HVAC Contractor
Can Am Fibers	Paper Distribution
The Diesel Works	Metal Arts and Makerspace
Dustbusters	Duct Cleaning Service
Elite Metal Fabricators	Metal Fabrication
Emco Tool	Tool Manufacturing
Fernbro Enterprises	Restaurant Parking
Friendly's Restaurants	Equipment Storage
Green Earth Roofing Solutions	Solar Installation
Heron Automation	Tool Manufacturing
Homeward Vets	Veterans Support Services
Iron Duke Brewing	Microbrewery
London & Sons Electric	Electrician
Molta Florist	Florist
New England Battery	Battery Sales and Servicing

Nostalgia Trans Am Specialists	Leather Seat Restoration
Outlaw Logistics	Commercial Salt Distribution
PAW	Custom Woodworking
PWE Fabrications	Precision Metal
Roy Manufacturing	Precision Manufacturing
Royal Coach	Livery Service
Site Acquisitions, Inc.	Cellular Tower
SPA Brokers of America	Hot Tub Spa Installer
SpiderCuff	Law Enforcement Tools
Sturbridge Flea Market	Antique Storage
Sue Martin Pallets	Pallet Supplier
TrickStar Tumbling and Fitness	Gymnastics Facility
Unitech Services Group	Distribution
Winn Residential	Storage

v. Continuing Obligations

The specific and appropriate care that Westmass has exercised related to hazardous substances at Ludlow Mills includes:

- With Funds from the FY12 EPA Brownfield Cleanup grant, Westmass retained the services via a contract with Cardno/ATC, Inc., to conduct ACM assessments, assist Westmass with the public bid process as well as the oversight of the contracted Abatement work including Air Quality Monitoring.
- With funds from the EPA FY12 grant Westmass contracted with Abide, Inc for the Abatement work selected after a public bid process an implementing the cleanup of the ACM for the decommissioned central steam heating system.
- With funds from the EPA FY13 grants, Westmass contracted with Tighe & Bond, Consultant Engineers for the Abatement and Demolition work on the Two Storehouse Buildings 286-291 & 292-296.
- Westmass retained the services of O'Reilly, Talbot, and Okun, Environmental Engineers, under the Mass EEOEA grant to advise the corporation on matters relating to hazardous substances at Ludlow Mills. Westmass has developed and undertaken a detailed Environmental Remediation Plan that has successfully accomplished the following:
- Formally reported known releases of hazardous materials to the Massachusetts Department of Environmental Protection, (MA DEP).
- Characterized the known releases for the purpose of developing a detailed response to the release and, in cooperation with MA DEP, developed extensive Environmental Remediation Plans.
- Carrying out mitigation measures for all releases of hazardous materials.

- Formally notified one tenant of violations regarding regulations related to the release of hazardous substances. That tenant discontinued use of the substance in question and retained the services of an environmental engineer to evaluate the potential release of hazardous substances in its formerly leased premises.

Specific and appropriate care that Westmass has exercised to prevent any threatened future releases and or prevent or limit exposure to any previously released hazardous substance includes:

- Westmass has written new language for inclusion in all lease documents that notifies tenants of their responsibilities with respect to the use of hazardous materials. Westmass will inspect leased premises on a regular and ongoing basis to ensure that there are no new releases or potential releases of hazardous materials.
- Westmass entered into a consent agreement with the Massachusetts Department of Environmental Protection which required the conversion of the existing oil-fired heating system to natural gas and required the removal of existing fuel oil storage tanks and piping which was completed in April 2012.

Westmass is committed to:

- Complying with all land-use restrictions and institutional controls;
- Assisting and cooperating with those performing the cleanup and providing access to the property;
- Complying with all information requests and administrative subpoenas that have or may be issued in connection with the property; and
- Providing all legally required notices.

11. Cleanup Authority and Oversight Structure

A. Westmass Area Development Corporation will be responsible for oversight of the Asbestos Removal and Remediation under this EPA FY21 Grant. Westmass will enroll the Cleanup in the Massachusetts Department of Environmental Protection's abatement process. Westmass will conduct a public bid process which while utilizing Federal Funding will for the most part following set procurement guidelines of existing Mass General Law regarding procurement (MGL 30 B) which is consistent with 40 CFR 31.36. Through this process, Westmass will solicit and select an Environmental Engineer for Project Planning and Oversight. The Environmental Engineer will assist Westmass with the selection of a Licensed Abatement/Demolition Contactor / Inspection / Testing Firm as well as project management and reporting. Selections of these firms for the cleanup project will be based on both qualifications and costs.

B. Because Westmass is the property owner of the 133 acre Ludlow Mills complex it does not anticipate needing access to adjacent properties to conduct the cleanup activity for the three sites.

12. Community Notification

Westmass Area Development Corporation published a legal notice (Attachment B) in the Ludlow Register appeared in the newspapers October 7, 2020 edition anouncing that a public meeting was scheduled to be held remotely on October 14, 2020.

The Notice was also placed on Westmass' web page (Attachment C)

The meeting created an opportunity for Westmass to present the proposed cleanup and solicit public review and comments. The presentation was made by Sean O'Donnell, Assistant Project Manager. The Draft Analysis of Brownfield Cleanup Alternative (ABCA) (Attachment D) summarizing the proposed cleanup proposal, applicable laws / regulations was also made available to the public for review and comments by request.

Comments received – None
Westmass response to comments – Not Applicable
Meeting Notes or Summary – Not Applicable

13. Statutory Cost Share

Westmass Area Development Corporation is respectfully requesting a hardship waiver of the cost share (see Attachment F).

ATTACHMENT B

$238.50 Total / EPA Brownfields / Ludlow Register 10.7 10.14

NOTICE OF PUBLIC MEETING
EPA Brownfields Cleanup Grant Application for Asbestos Removal / Remediation
Ludlow Mills, Ludlow, Massachusetts

Applicant: Westmass Area Development Corporation

Westmass Area Development Corporation (Westmass) is applying for a FY2021 US EPA Brownfield Cleanup Grant for Asbestos Removal at Ludlow Mills. A Public Meeting to solicit and accept public input, as well as review the proposed cleanup project and grant application, is scheduled to be held **remotely** at **5:00 PM on October 14, 2020**. This meeting will be conducted via conference call.

Anyone wishing to participate remotely shall, as soon as reasonably possible prior to the meeting, provide notice to Assistant Project Manager Sean O'Donnell at (413) 519-0052 Monday-Friday 8:30AM to 4:30AM or by email at s.odonnell@westmassdevelopment.com. Those giving such notice will need to identify at the meeting and provide their name, address, and a contact phone number. At the start of the meeting, the Westmass representative shall announce those persons participating remotely and the information will be recorded in the meeting minutes. Anyone from the public is invited and welcome to attend. In addition to the grant application, a draft Analysis of Brownfields Cleanup Alternatives (ABCA) will be available by request for review and comment.

Westmass will accept comments on the US EPA FY21 Brownfield Cleanup Grant application and proposed cleanup project prior to the scheduled submittal of the grant application on October 28, 2020. Comments should be submitted in writing to Sean O'Donnell, Assistant Project Manager Westmass Area Development Corporation, One Monarch Place Suite 1350, Springfield, MA 01144 or via e-mail at the address above.

10/07, 10/14/2020

ATTACHMENT C

Phone: (413) 593-6421

Notice of Public Meeting – EPA Brownfields Cleanup Grant Application

October 13, 2020

Westmass is applying for a FY2021 US EPA Brownfield Cleanup Grant for Asbestos Removal at Ludlow Mills. A Public Meeting to solicit and accept public input, as well as review the proposed cleanup project and grant application, is scheduled to be held remotely at 5:00 PM on October 14, 2020. This meeting will be conducted via conference call.

Anyone wishing to participate remotely shall, as soon as reasonably possible prior to the meeting, provide notice to Assistant Project Manager Sean O'Donnell at (413) 519-0052 Monday-Friday 8:30AM to 4:30AM or by email at s.odonnell@westmassdevelopment.com. Those giving such notice will need to identify at the meeting and provide their name, address, and a contact phone number. At the start of the meeting, the Westmass representative shall announce those persons participating remotely and the information will be recorded in the meeting minutes. Anyone from the public is invited and welcome to attend. In addition to the grant application, a draft Analysis of Brownfields Cleanup Alternatives (ABCA) will be available by request for review and comment.

Westmass will accept comments on the US EPA FY21 Brownfield Cleanup Grant application and proposed cleanup project prior to the scheduled submittal of the grant application on October 28, 2020. Comments should be submitted in writing to Sean O'Donnell, Assistant Project Manager Westmass Area Development Corporation, One Monarch Place Suite 1350, Springfield, MA 01144 or via e-mail at the address above.

Posted in News

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ATTACHMENT D: ANALYSIS OF BROWNFIELD CLEANUP ALTERNATIVES (ABCA) - PRELIMINARY EVALUATION ASBESTOS REMOVAL AND REMEDIATION

PROJECT: Ludlow Mill Building Roofs, Interior Tiles and Window Glazing
Ludlow Mills Complex, 100 State Street, Ludlow, MA 01056

This Analysis of Brownfield's Cleanup Alternatives (ABCA) is intended to provide a cleanup project summary outline in support of a pending Grant Application to the FY 2021 US EPA Brownfield Cleanup program.

Release Tracking Number
The Massachusetts Department of Environmental Protection (MADEP) does not assign specific tracking numbers to asbestos abatement projects such as the one proposed for Ludlow Mills. Release Tracking Numbers (RTNs) however were issued related to the AAI- ASTM Phase I and Phase II Environmental Site Assessment Reports and several other sites at Ludlow Mills where contamination has been cleaned up with State Site Remediation Grant funds. That remediation work was completed in June of 2014.

Prepared by: Westmass Area Development Corporation, Owner of the
Property One Monarch Place, Suite 1350
Springfield, MA 01144
www.westmassdevelopment.com

I. INTRODUCTION & BACKGROUND

a. Site Location

The project is located at 100 State Street in Ludlow, Massachusetts within the historic Ludlow Mills Complex and specifically involves **Mill building #44** located in the south-central portion of the mill complex along the Chicopee River, **Stockhouse annex #109A/209A** located in the central portion of the complex and **Stockhouse #s158/258; 160/260-169/269; 171/271** west of First Avenue at the eastern end of the complex.

b. Previous Site Uses and any Previous Site Cleanup / Remediation

Previous Site Use(s):
The project area on the Chicopee River has been utilized by industry since the late eighteenth century. Between 1812 and 1844 the site supported operation of textile and cotton mills. Gun barrels were manufactured at the site of the current Mill No. 8 building from 1840 to 1846. Between 1846 and 1848 the building was used for the manufacturing of textile machinery. Starting in 1850, Jute products were produced on the property and the Ludlow Manufacturing Company was established in 1856, later named the Ludlow Mills Company.

Jute manufacturing remained the primary activity on the site into the mid-20th century. A majority of the historic mill buildings, including the stockhouses and building #44, remain from the early 20th century having been built starting in 1901 with significant mill expansion. The historic mill complex is approximately 52 acres in size and contains approximately 35 structures with a total floor space of approximately 1,200,000 square feet.

Since the 1960's the complex has been a multi-tenant industrial park and contains a large number of commercial and industrial operations. Of the site's extant mill buildings, five are large multi-story structures (Mill #s 8, 9, 10 and 11, and the 300 series storage building along State Street). The additional buildings consist of a series of small (approximately 6,000-12,000 SF), single story, brick block stockhouses located along the Chicopee River in the south and eastern portion part of the site; the former locomotive building and associated maintenance building (#58) and the former carpentry building (#44). The Ludlow Mills complex is included within the Ludlow Village National Historic District (LUD.F) and listed in the State and National Registers of Historic Places.

Previous Site Clean-up and Remediation:
Under the previous site ownership of Ludlow Industrial Realty Inc., a Phase 1 Environmental Site Assessment (ESA) was prepared in March 2009 by Advanced Environmental Solutions, Inc. (AES) for the US Environmental Protection Agency (EPA). That Phase 1 ESA was updated by AES in August 2011. In addition, AES prepared a Phase II ESA for the property between September 2010 and June 2011.

The Phase II Environmental Site Assessment (ESA), performed in 2010 and 2011, identified several Recognized Environmental Conditions (RECs). Subsequent environmental assessment activities including limited testing were conducted. The results were compiled in the Phase II ESA dated August 2011, in which 18 RECs existed. These RECs related to industrial use of the property and other subsequent tenants, the illegal disposal of materials, and the use of an up-gradient property as a gasoline station. The report indicated recommendations for additional assessment.

Known releases at the Ludlow Mills property identified in the Phase I and Phase II ESAs include releases of polychlorinated biphenyl (PCB) from transformers, #6 fuel oil from the use and storage of heating oil, and diesel fuel from a delivery truck. Releases of PCBs were concentrated around electrical substations to the north of Mill building 10 and on the Chicopee River bank. Contaminated soil that was accessible at the time was removed from these areas, however, residual contamination remained underneath the substations and an Activity and Use Limitation (AUL) is in place in order to limit exposure should the contaminated soil be disturbed. The AUL was terminated in 2014. Historically, several releases of fuel oil were reported near stockhouse #205, which served as the Boiler Building, as a result of filling operations of the two 15,000-gallon fuel oil underground storage tanks (USTs) used for fuel oil storage. Soil in the immediate area around the tanks was excavated and impacted water in storm drains was cleaned up. The two USTs were removed in April 2012.

Westmass and its consultant at that time, O'Reilly, Talbot and Okun Associates, Inc. (OTO), developed a Remediation Plan, (excluding asbestos) for implementation. The estimated cost of implementation of the Remediation Plan for the Recognized Environmental Concerns identified in the Phase I and II reports was estimated to be $1,500,000. Funding was secured from the Massachusetts Executive Office of Energy and Environmental Affairs (EOEEA) through a $1,500,000 grant awarded to Westmass for site remediation of the Ludlow Mills property. Westmass actively implemented the Remediation Plan and finalized this remediation work in June of 2014.

c. Site Assessment Findings – Hazardous Materials

In August 2020, Westmass Area Development Corporation (Westmass) contracted with O'Reilly, Talbot and Okun Associates, Inc. (OTO) again to conduct asbestos assessment and testing on the floor tiles and window glazing of building #44 and stockhouses #158/258, 160/260-169/269 and 171. Westmass Area Development Corporation paid for this contract from its own funds. In addition, Westmass analyzed the data from the June 2018 Draft Targeted Brownfields Assessment Report prepared by Nobis Engineering for EPA Region 1 in order to determine other sources of asbestos contamination. Results from the OTO and Nobis reports indicate numerous instances of asbestos on stockhouse roofs, floor tiles and window glazings as well as in the Ludlow mill building #44.

Building #44

The floors of this building are concrete or hardwood, finished in some areas with various color resilient flooring and associated mastics. Walls are either brick, or gypsum wallboard with seam tape and joint compound. Ceilings are primarily exposed wood ceiling with steel framing or finished with ceiling tiles. Windows (approximately 8' x 9') throughout the building are multi-pane, metal framed windows with glazing compounds. Bulk samples were collected of resilient flooring and mastics, gypsum wall components, ceiling tiles, and window glazing compounds. Laboratory analysis of these materials indicates that the resilient floor tiles and window glazing contain asbestos.

Other hazardous materials identified as having been dumped in building #44 include florescent light fixtures, ballasts and light tubes; tires; televisions; and universal waste-primarily paints, thinners, commercial size motor oils and cleaning products.

Stockhouses #158/258, 160/260-169/269, 171/271

The general construction of each of these structures is similar to building #44 but are one-story masonry, slab on grade structures. The exteriors are finished with brick. In some areas the brick contains adhesives that was likely present when former buildings were attached. Laboratory analysis for adhesive material samples indicate the adhesives contain asbestos in stockhouses #s158/258 and 161/261.

Most of the Stockhouses have unfinished interiors, and are either vacant and/or used for storage of miscellaneous items. In general, finished areas of some stockhouses include various color and pattern resilient (tile or sheet) flooring with associated mastics, ceramic tile, or carpet over wood or concrete floors. Finished walls were constructed of gypsum wallboard, seam tape and joint compound. Ceilings were also gypsum wallboard, finished in some areas with a textured coat, or ceiling tiles. Bulk samples were collected of these various building materials. Analytical laboratory analysis indicate that, of these materials, stockhouse #161/261 contains asbestos in the ceramic tile grout.

Roofs

The 2018 Nobis report identified ACM during the roof inspections. Roofing materials containing asbestos were identified in several stockhouse roofs and include roof sealant, underlayment, roofing tar, roofing paper, rolled roofing/roll-on shingles, and modified bituminous patches. Specifically, the stockhouse 109A annex roof contains black tar paper and roof sealant as well as the roofs on stockhouse #s 162/262, 164/264, 166/266, 168/268 and 171/271.

d. Project Goal

The Ludlow Mills Preservation and Redevelopment Project continues to reverse years of neglect at the mill complex and will continue to spur local and regional economic activity and job creation. By remediating numerous environmental hazards & asbestos contamination, the project will protect sensitive environmental resources and provide the community with public access to the Chicopee River for passive recreation.

Redevelopment and revitalization of the Ludlow Mills complex is a regionally significant economic development project and has been cited within the 2019 Annual Comprehensive Economic Development Strategy (CEDS) report of the Pioneer Valley Plan for Progress, as a regional "High Priority Project". The intent is to serve areas meeting US Economic Development Administration Economic Distress Criteria according to the Pioneer Valley Planning Commission.

Westmass plans to redevelop the complex with green technologies including solar and low impact development storm water (LID) systems. The overall project embraces sustainable development principles and seeks to meet USGBC LEED quality standards for new construction at the site. When redevelopment is complete, preliminary estimates indicate that the site could generate more than 2,000 jobs for residents of the region and potentially stimulate up to $300,000,000 of private investment. The project's primary focus will be on commercial and industrial development with a limited number of residential housing units.

Westmass has been successful in obtaining assistance and cooperation from several sources at the Federal, State and Local levels as well as private utilities for redevelopment efforts. The direct involvement and support from the start of this regionally significant project by federal and state officials, numerous elected officials and the community of Ludlow have been instrumental. Westmass is committed to seeing that the Ludlow Mills once again becomes a major contributor to the economic prosperity of the region.

To date the Ludlow Mills Preservation and Redevelopment project has achieved numerous milestones highlighted below:

- Between 2009 and 2011, the Project received $231,000 in funding from the U.S. Environmental Protection Agency for environmental site assessment.
- Westmass Area Development Corporation purchased the property on August 24, 2011.
- Westmass was awarded a $200,000 FY12 US EPA Brownfield Cleanup Grant for the Phase I portion of the Ludlow Mills Asbestos Abatement and Removal involving ACM Pipe Wrap on existing abandoned steam piping in mill buildings #s8 and 11 and the #300s buildings.
- In 2012, Columbia Gas invested in excess of $600,000 to complete construction of a new intermediate pressure natural gas line along the length of State Street.
- Westmass was awarded a total of $400,000 with two separate FY13 US EPA Brownfield Cleanup Grants for the Phase II portion of the Ludlow Mills Asbestos Abatement and Removal involving ACM abatement and demolition of Storehouse building 286-291 and Storehouse building 292-296.
- Westmass received a $1.5 million grant from the Massachusetts Executive Office of Energy and Environmental Affairs (EOEEA) for environmental remediation work (excluding asbestos) at Ludlow Mills.

- The $27 Million dollar HealthSouth Rehabilitation Hospital Project (Private) was completed in November 2013 and achieved LEED HC Gold certification.
- In 2017 Winn Development, utilizing Historic Tax Credits as part of the financing package, completed a $24 million, adaptive reuse of Mill #10 to provide 55 units of Senior Independent Living.
- The Town of Ludlow received $3.7 million in funding for the reconstruction of State Street and First Avenue, replacement of water lines, and installation of streetscape improvements and a sewer pump station.
- With input from Westmass, the Town of Ludlow voted to change the zoning for the site from Industrial A to Mill Redevelopment District, to allow mixed use development. In addition the Town created a Smart Growth Overlay District, Ludlow Mills Sub-District.
- Westmass secured State permitting from MEPA for the Final Environmental Impact Report in September 2017 with the issuance of a Certificate of the Secretary of Energy and Environmental Affairs.
- Westmass has received approval of the delineation of wetlands and riverfront area under the Massachusetts Wetlands Protection Act from the Ludlow Conservation Commission.
- Westmass has received $2 million of private financing for project development from a consortium of regional lenders.
- In 2019, the Town of Ludlow, in partnership with Westmass, received $6.6 million in grant funds from the MassWorks Infrastructure Program and the US Department of Commerce Economic Development Administration to construct a 4,200 linear foot roadway and associated infrastructure within the mill complex to advance revitalization efforts.
- With a $7 million investment, the Town of Ludlow is currently completing the construction of a new Ludlow Senior Center State Street on mill land formerly owned by Westmass on State Street.
- Winn Development is currently proposing to adaptively reuse Mill #8 (theiconic clocktower building) as residential housing using historic tax credits. This represents an approximate $58 million investment.

II. APPLICABLE REGULATIONS AND CLEANUP STANDARDS

Cleanup Oversight Responsibility – Westmass Area Development Corporation will be responsible for oversight of the Asbestos Removal and Remediation. In a public bid process following set procurement guidelines, Westmass will solicit and select an Environmental Engineer for project planning, oversight and assistance with the selection of a Licensed Abatement Contactor with a Licensed Inspection / Testing Firm. Selections will be based both on qualifications and costs.

a. Cleanup Standards for Major Contaminants

Laws and regulations are applicable to the removal and disposal of Asbestos materials as Hazardous Waste. These standards are in place to prevent it from becoming airborne and harmful to workers or the public. Regulations include Federal laws and worker protection standards from exposures, address transportation of asbestos waste, and limit air pollutants under National Emissions Standards for Hazardous Air Pollutants.

Massachusetts Laws and Regulations require notification and work practices to avoid fiber release for asbestos handling, removal, storage, transport, and disposal. Regulation also requires inspection of demolition/renovation and manufacturing operations and special waste landfilling of asbestos and asbestos-containing material.

b. Laws and Regulations Applicable to the Cleanup

Federal Regulations

- Brownfields Revitalization Act
- Davis / Bacon Act
- OSHA: Regulations: 29 CFR Parts 1910 & 1926.
- DOT: Title 49, section 173.1090.
- EPA: (NESHAP)**:** 40 CFR Part 61 Subpart M.
- Emergency Response Act (AHERA) 40 CFR Part 763
- Toxic Substances Control Act (TSCA).

Massachusetts Regulations

- 310 CMR 7.00: AIR POLLUTION CONTROL specifically section 7.09: Dust, Odor, Construction and Demolition,
- Regulations: 310 CMR 4.00 (Air quality notification approval timelines and fees), 7.00, 7.09(5), 7.15 (Air quality asbestos regulation) and 310 CMR 19.061 (disposal requirements) and 310 CMR 16.00 (landfill siting; asphalt-brick-concrete recycling).
- Massachusetts Department of Environmental Protection and its Bureau of Waste Site Cleanup (DEP-BWSC), regulates cleanup of hazardous materials. Material containing asbestos must be reported if released to the environment or if it poses a threat of release, Regulations: 310 CMR 40.0000.
- The Massachusetts Department of Public Health's (DPH) State Sanitary code requires that property owners must maintain asbestos in good repair. Any repair and removal of asbestos must be done in accordance with all DEP and DPH asbestos regulations, Regulations: 105 CMR 410.353 (Sanitary Code) 105 CMR 670 (Community Right-to-Know).
- Mass Department of Occupational Safety (DOS) prescribes training, certification and/or licensing requirements for persons and firms engaged in asbestos work, inspections, monitoring, laboratories and training providers. DOS also prescribes project notification and work practice requirements for asbestos work.

Local Regulation and Project Coordination

Westmass, along with its Licensed Abatement Contactor and Licensed Inspection / Testing Firm, will coordinate with the Ludlow Building Commissioner and the Ludlow Board of Health as applicable for this cleanup. Westmass, and its contractors, will obtain required sign offs and will take all cautions practicable to prevent any condition that may affect the health or safety of the public or occupants of Ludlow Mills.

Other applicable regulations include Federal, state, and local laws regarding procurement of contractors conducting the cleanup will be followed. In addition, all appropriate permits will be acquired prior to the work commencing such as Dig Safe, Transport and other Asbestos MADEP Asbestos Abatement Notification filings.

III. EVALUATION OF CLEANUP ALTERNATIVES

a. Cleanup Alternatives Considered

To address contamination at the Site, three different alternatives were considered as follows:

- Alternative #1: No Action,
- Alternative #2: Repair, Encapsulation and Ongoing Maintenance, and
- Alternative #3: Removal and Offsite Disposal.

b. Effectiveness, Implementability & Cost of Cleanup Alternatives

Effectiveness

Alternative #1: No Action: This Alternative is not an effective option in controlling or preventing the exposure of persons or the environment to contamination at the site. No Action is included in this evaluation in order to compare and contrast any significant reduction in site risk to other remedial actions to.

The No Action Alternative would severely restrict the ability of Westmass to move forward with the adaptive reuse of some mill buildings as well the demolition of buildings impeding other significant redevelopment projects. As outlined previously there has been significant investment to date from both public and private funding for the Ludlow Mills project which would be significantly impacted and stranded.

The No Action Alternative does not meet the goal of the redevelopment of the Ludlow Mills because adaptive reuse of the buildings or removal of unusable or unstable buildings cannot occur unless the asbestos is removed.

Alternative #2: Repair, Encapsulation, Operation and Maintenance (O&M): Repair and encapsulation could be an effective way to prevent persons from coming into direct contact with asbestos in the Mill Area if the encapsulation is maintained. However, encapsulation is not an effective means to control other exposures, such as direct contact risks for occupants of the site over time as well as workers performing the adaptive reuse work planned to revitalize Ludlow Mills. Repair and encapsulation limits the reuse options to those without occupied space such as storage and is not a viable option when demolition of the building is necessary.

Asbestos encapsulation is the process of using a product that either coats or creates a membrane to prevent the asbestos fibers from getting into the air or penetrates the asbestos containing material binding the components together. Asbestos encapsulation can also be done by sealing off any areas containing asbestos with an air proof barrier. In some cases asbestos encapsulation can be used in order to avoid the high cost of asbestos removal. Asbestos encapsulation is a cheaper option, and is safe as long as the area does not need to be disturbed.

During repair and encapsulation the Abatement contractor will isolate the portion of the building where repair and encapsulation is taking place most likely with sheets of plastic, and provide self-contained showers and throwaway protective suits to prevent contamination of the workers. All tools and materials used must be sufficiently cleaned and all waste containing asbestos generated by the project such the protective suits will

be bagged in plastic, and properly disposed of.

The Environmental Protection Agency does not recommend asbestos encapsulation where the asbestos is more than one inch thick, water damaged, has poor cohesive strength or where the asbestos is accessible to the people who are using the building. In these instances it is better to remove the asbestos to minimize the risk to the occupants of the building.

Alternative #2 would severely restrict the ability of Westmass to move forward with the redevelopment of Ludlow Mills and specifically the demolition of stockhouses that are unsafe or unstable.

Alternative #3: Removal and Offsite Disposal: Removal and offsite disposal is the most effective way to eliminate risk to humans and the environment at the site, since ACM contamination will be removed and the exposure pathways will no longer exist. All asbestos-containing materials are totally removed from the roofs and interior spaces of the Mill buildings in question which will facilitate redevelopment activities. No further monitoring or maintenance of the asbestos-containing materials is needed.

The Abatement contractor will isolate and remove the portion of the buildings where the asbestos removal is taking place with sheets of plastic, and provide self-contained showers and throwaway protective suits to prevent contamination of the workers. All asbestos-containing materials will be bagged in plastic, and proper disposal arranged.

An important aspect of asbestos-removal is air quality monitoring by an inspector who will be at the site throughout the abatement work. The selected firm monitoring the project will be completely independent from the contractor performing the work to provide oversight. This independent firm will set up an air monitoring station to ensure that the concentrations of asbestos fibers both inside and outside the work area do not increase beyond standards required by MA DEP.

The Environmental Protection Agency recommends asbestos removal as the best method to minimize the risk to workers or the occupants of the building the public and visitors to the Ludlow Mills complex.

Implementability

Alternative #1: No Action: No Action is a simple alternative to implement since no actions need to be undertaken by the owner.

Alternative #2: Repair, Encapsulation, Operation and Maintenance (O&M): These actions require significant effort and expense to implement given the extent of asbestos contamination on many of the stockhouse roofs. Repair and encapsulation will require access to all outside and confined spaces that were identified to have asbestos contamination. Testing will be required when the work is being performed. In addition, this alternative may require the long term installation and monitoring of air quality monitoring stations. Because the site is active with diverse tenants and leasing space and adaptive reuse being planned for the structures' throughout the mills, ongoing air sampling equipment, monitoring and maintenance of the encapsulation would require periodic testing and reporting. Because of these reasons this alternative is considered very difficult

to implement over the long term.

Alternative #3: Removal and Offsite Disposal: Removal and offsite disposal is moderately difficult to implement. Coordination and testing will be required during cleanup activities (e.g., site control and air handling enclosures, dust suppression and monitoring). A minor increase in traffic will result from additional trucks transporting materials offsite. Testing will be required when the abatement work is being performed however long term monitoring and maintenance will not be required after offsite disposal. By taking advantage of the asbestos removal, alternative the hazardous materials can be removed intact, placed in bags, sealed, transported and disposed of offsite. An opportunity currently exists with many of the stockhouses as they are currently unoccupied so the remediation work can be performed efficiently.

One significant advantage of the Ludlow Mills Asbestos Removal and Offsite Disposal Alternative for the stockhouses is that they are separate structures which can be abated and demolished in a controlled operation. The result of the cleanup and potential demolition would be advantageous to the overall Ludlow Mills Preservation and Redevelopment project and consistent with the approved Ludlow Mills Master Plan, approved Local Comprehensive Plan and Massachusetts Environmental Policy Act (MEPA) permitting.

Cost

Alternative #1: No Action: No direct costs are associated with the "No Action" alternative.

Alternative #2: Repair, Encapsulation, Operation and Maintenance (O&M): Direct costs would be incurred from relocation of business or uses of the buildings being remediated. No new use is projected for these buildings if the asbestos was abated via encapsulation in Alternative #2. An extensive Operation and Maintenance Plan and associated costs will be required. Major private investment and public funding for adaptive reuse and redevelopment which are enabling other Mill buildings to be revitalized would not leveraged if the asbestos contamination remains in place. In addition, asbestos encapsulation typically just defers the time when the asbestos will need to be removed. All future renovations to an area which has asbestos encapsulation will require the removal of the asbestos, adding that cost to the planned renovation.

Alternative #3: Removal and Offsite Disposal: The estimated cost is approximately $365,000 for remediation and removal of the ACM in stockhouse roofs, interior floor tiles and window glazing. Some costs may be offset by salvaged materials and recycling.

Recommended Cleanup Alternative

The recommended cleanup alternative is **Alternative #3: Removal with Offsite Disposal.**

Alternative#1: No Action

The No Action alternative cannot be recommended since it does not effectively address public health risks posed by the Hazardous Materials when the site is redeveloped. In addition, this alternative does not allow the achievement of the project goal of reuse, redevelopment and job creation. Extensive redevelopment of the historic mill and the

adaptive reuse of several historic buildings could not occur.

Alternative #2: Encapsulation, Repair and Maintenance

The encapsulation, repair and maintenance alternative cannot be recommended since it does not address site risks posed by the hazardous materials. Although Alternative #2 is less expensive than removal and offsite disposal, it would require ongoing costs potentially including air monitoring and maintenance. Using asbestos encapsulation also only defers the time when the asbestos will need to be removed. Any proposed renovations for adaptive reuse and redevelopment to buildings or areas containing asbestos after encapsulation will require the removal of the asbestos, adding to the cost of renovation for the adaptive reuse or demolition planned. This makes Alterative #2 more difficult to implement than Alternative #3. In addition, this alternative does not enable the achievement of the project goals.

Alternative #3: Removal and Remediation with Offsite Disposal

This Alternative would achieve a permanent solution of preventing exposure by removing contamination at the site. Removal of the asbestos from the roofs, window glazing and floor tiles will enable the demolition and/or adaptive reuse redevelopment program at the Mills to proceed. Costs of ACM removal will not be included piece meal as buildings are rehabilitated and there may be cost savings from bidding a larger project. Removal will also accelerate the overall project timeline by making other nearby buildings readily available. In addition, an opportunity currently exists with the abandonment and demolition to efficiently remove whole sections of asbestos roofing, quickly bag these items and remove them for proper disposal. Finally, the removal and remediation with offsite disposal of asbestos and demolition of the resulting unsafe structures is an eligible cleanup cost under the EPA grant. This is not the case with the funds received for the other environmental remediation work at Ludlow Mills from the Massachusetts Executive Office of Energy and Environmental Affairs (EOEEA), so this grant funding is critical to the ongoing remediation and redevelopment of the site.

Alternative #3 protects public health to the greatest extent and has the benefit of achieving the desired results for the long term benefits of the project. For these reasons, Westmass has selected **Alternative #3: Removal and Remediation with Offsite Disposa**l and complete cleanup as the preferred Alternative and will be submitting this Alternative as a Grant Application to the FY 2021 US EPA Brownfield Cleanup program.

Sources:

Asbestos and Hazardous Materials Assessment Report: Building #44 and Select Stockhouses, O'Reilly, Talbot & Okun, Inc. August 2020. Prepared for Westmass.

Estimate for Asbestos Removal, Compass Restoration Services LLC. October 2020. Prepared for Westmass.

Targeted Brownfields Assessment Report, Nobis Engineering, Inc. June 2018. Prepared for EPA Region 1.

Asbestos Inspection Report for Buildings 161/261, 163/263, 165/265, 167/267, Tighe & Bond Engineers and Environmental Specialists. September 2017. Prepared for Westmass.

Internal Revenue Service

Department of the Treasury

NOV 17

District Director

P.O. Box 1680, GPO Brooklyn, N.Y. 11202

Date: NOV 14 1983

Westmass Area Development Corp.
1500 Main Street
Springfield, MA 01115

Date of Exemption:

Internal Revenue Code
Section: 501(c)(6)

Gentlemen:

Thank you for submitting the information shown below. We have made it a part of your file.

The changes indicated do not adversely affect your exempt status and the exemption letter issued to you continues in effect.

Please let us know about any further change in the character, purpose, method of operation, name or address of your organization. This is a requirement for retaining your exempt status.

Thank you for your cooperation.

Sincerely yours,

Thomas P. Coleman

District Director

cc:

Item Changed: Articles of Amendment to Charter increasing number of Board of Directors to not more than 36 members, and changing the term President to Chairman of the Board, recorded July 19, 1982.

ATTACHMENT F

Westmass

Westmass Area Development Corporation

October 28, 2020

Jim Byrne, Brownfields Coordinator
EPA New England – Region 1
5 Post Office Square, Suite 100
OSRR07-2
Boston, MA 02109-3912

RE: Hardship Waiver Request for FY21 Brownfield Cleanup Grant Application

Dear Mr. Byrne,

Westmass Area Development Corporation would like to respectfully request a hardship waiver for the 20% cost share requirement as part of this Brownfield Cleanup Grant application. Westmass is a 501c(6) non-profit community development organization whose largest undertaking is the ongoing Ludlow Mills Preservation and Redevelopment project. The Ludlow Mills property and surrounding area continue to face economic hardship compared to the region and state, as well as a continued downward trend of economic and demographic indicators. According to American Community Survey (2013-2018) estimates, the target area has seen a loss of population of 7.3% within just the past 5 years (compared to a population increase of 3.4% across the state as a whole). The level of poverty within the target area is perhaps most striking; at 19.8%, the number of individuals living in poverty is almost double that of Massachusetts (10.8%) and has increased by a staggering 54.5% over the past five years.

The high level of poverty within the target area, lack of investment, and other economic factors are what led to the creation of an Opportunity Zone around the Ludlow Mills Brownfield Site in 2018. Median household income in the target area is nearly half that of Massachusetts ($46,218 compared to $77,378) and median housing value is even lower, just 47% that of the state ($172,700 compared to $366,800). Per capita income is similar with individuals in the target area making just $22,526, compared to $41,794 in Massachusetts (46% lower).

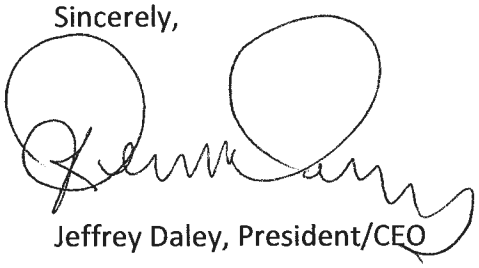
Maintaining the integrity of the Mills and attracting new investment poses significant ongoing economic hardship to Westmass, as well as an increased vulnerability to those who live and work on the site. The once significant disinvestment in the target area (including the closure of the Mills several decades ago), has contributed to the ongoing issues of low property values and access to well-paying jobs around the project area. To

help reverse this trend, Westmass strives to attract new investment and remove blight and other barriers to redevelopment.

If for any reason the hardship waiver is not approved, Westmass will unfortunately not be able to commit financially to the cost share towards the proposed cleanup work. However, Westmass would be willing to dedicate in-kind professional staff time to help oversee and manage the project.

I invite you to come and visit the Ludlow Mills project and see firsthand the ongoing and exciting improvements that to date have been the result of EPA, the state, the town and Westmass focusing our resources together. Award of this Cleanup Grant request will allow us to continue make significant, positive and sustainable environmental and economic changes for the future of the Ludlow Mills and our region.

Sincerely,



Jeffrey Daley, President/CEO

ATTACHMENT G

A. Crane CONSTRUCTION
GENERAL CONTRACTOR

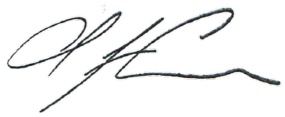
821 East Main Street
Chicopee, MA 01020
(P) 413-594-2450
(F) 413-474-6779

Dear Jeff,

It is my intent to enter into a Purchase and Sale Agreement on Mill Building #44, the former carpentry shop, currently owned by Westmass and located along the Chicopee River at the Ludlow Mills. I plan to adaptively reuse this two-story, brick building as a restaurant and office space with the potential for a future banquet facility. The building's location on the River, adjacent to the Town of Ludlow's Riverwalk, and fronting on the new road being built by the Town and Westmass, make it an ideal location for this use.

This redevelopment project represents an investment by my company of over $2 million dollars and has the potential to create over 30 jobs. The overall redevelopment of the Ludlow Mills is an integral part of the economic revitalization of the Town and region and I am excited to be a part of this vision and long-term redevelopment project.

Best Regards,



Andrew J Crane
A. Crane Construction, LLC

ATTACHMENT H

COMMONWEALTH SITE READINESS PROGRAM
TECHNICAL ASSISTANCE TO PRIVATE RECIPIENT
RECOVERABLE GRANT AGREEMENT

THIS RECOVERABLE GRANT AGREEMENT (the "Agreement") dated this 24th day of June , 2020 (the "Effective Date"), between MASSACHUSETTS DEVELOPMENT FINANCE AGENCY, a Massachusetts body politic and corporate established and existing under Chapter 23G of the Massachusetts General Laws, having its principal place of business at 99 High Street, Boston, Massachusetts 02110 ("MassDevelopment"), and WESTMASS AREA DEVELOPMENT CORPORATION, a Massachusetts non-profit development corporation having a mailing address at One Monarch Place, Suite 1350, Springfield, Massachusetts 01144 (the "Recipient").

RECITALS

WHEREAS, the Site Readiness Program ("the Program") was created pursuant to *An Act Relative to Job Creation and Workforce Development*, 2016 Mass. Acts c. 219, § 2A (the "Enabling Legislation") to fund site assembly, site assessment, predevelopment permitting and other predevelopment marketing activities that enhance a site's readiness for commercial, industrial or mixed use development;

WHEREAS, MassDevelopment's Board of Directors voted to approve guidelines for the Program on January 12, 2017 and amended and ratified those guidelines on June 8, 2017 and September 13, 2018, and October 10, 2019; and

WHEREAS, on February 13, 2020, MassDevelopment's Board of directors approved a Program award on behalf of Recipient; and

WHEREAS, Recipient desires to improve site readiness at its Ludlow Mills property located at 100 State Street, Ludlow, Massachusetts 01056 (the "Site"); and

WHEREAS, this Agreement is entered into for the public purpose, consistent with the Enabling Legislation and the Program's guidelines, of assisting Recipient undertake a strategic market study to guide near-term decision making and improve site readiness at the Site (the "Project"); and

WHEREAS, Recipient and MassDevelopment agree that MassDevelopment will contract with Hodge Economic Consulting, Inc. and R. Levesque Associates (collectively, the "Consultant Team") to provide certain services in connection with the Project as further described in **Exhibit A** attached hereto and made part hereof (the "Services"); and

WHEREAS, the Recipient and MassDevelopment intend by this Agreement to establish clearly articulated responsibilities expressly agreed upon by both parties.

TERMS

NOW, THEREFORE, in consideration of the mutual promises set forth herein and of other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties hereto hereby agree as follows:

1. MassDevelopment's Obligations.

(a) MassDevelopment, in collaboration with the Recipient, shall retain, manage, and oversee the performance by the Consultant Team of the Services, and MassDevelopment shall provide staff time reasonably necessary in connection therewith (the "MassDevelopment Services").

(b) MassDevelopment, in collaboration with the Recipient, shall cause the Consultant Team to perform the Services in a professional, competent, and timely manner.

(c) MassDevelopment shall attend any necessary meetings or Site visits with the Recipient and the Consultant Team.

(d) MassDevelopment shall allocate and expend up to $80,000 in the delivery of the Services, exclusive of the expenses and costs of its staff time (the "MassDevelopment Funds"). The amount of the MassDevelopment Funds actually disbursed that have not already been repaid to MassDevelopment are referred to as the "Disbursed Funds".

2. Recipient's Obligations.

(a) If applicable, Recipient shall comply with MassDevelopment's "Contractor Policy" (attached hereto as **Exhibit C** and made a part hereof), which requires that Recipient or its affiliates have not and will not enter into a contract for work financed by MassDevelopment with any vendor or contractor listed as debarred or suspended on the debarment lists maintained by the Commonwealth of Massachusetts' Division of Capital Asset Management and Maintenance, the Department of Transportation, the Department of Industrial Accidents, the Office of the Attorney General, and the Federal Government (the "Debarment Lists");

(b) For five years from the Effective Date, the Recipient shall provide biannual update reports to MassDevelopment that include Project goals, updates, timelines, Net Proceeds, and Economic Benefit to the Municipality; the biannual reports are due on or before June 30 and December 31 of each calendar year. After the expiration of five years from the Effective Date, the Recipient shall provide annual reports, with the same information referenced above, to MassDevelopment, on December 31 of each year, until the earlier of: (i) the date MassDevelopment has been fully reimbursed for the Disbursed Funds or (ii) the date the Agreement has expired.

(c) Recipient hereby represents and warrants that:

(i) The Disbursed Funds shall be used exclusively for the Services and Site

acquisition.

(ii) Recipient has the legal power and authority to enter into and perform this Agreement and any related documents in which it is named as a party, to fulfill its obligations set forth herein and therein and to carry out the transactions contemplated hereby and thereby.

(iii) This Agreement and any other documents delivered to MassDevelopment by Recipient pursuant hereto are the legal, valid and binding obligations of Recipient, enforceable against Recipient in accordance with their respective terms. There are no actions, suits, proceedings, adverse findings or investigations pending or, to the knowledge of Recipient, threatened, anticipated or contemplated (nor, to the knowledge of Recipient, is there any basis therefor) against or affecting Recipient before any court or governmental department, commission, board, bureau, agency or instrumentality, domestic or foreign, that call into question the validity of this Agreement or any action taken or to be taken in connection with the transactions contemplated hereby.

(iv) Each of the representations and warranties of this section shall survive the advance of the Grant Amount pursuant to this Agreement and the termination of this Agreement and Recipient shall indemnify and hold harmless MassDevelopment and any members, officers, employees, or directors thereof (the "Indemnitees") from and against all loss, expense or liability directly or indirectly resulting from the breach thereof, including, without limitation, the cost of defending or settling any claim arising therefrom against the Indemnitees.

(c) The Recipient shall provide all reasonable cooperation, access, consents, data, and such other assistance as may be necessary to facilitate the diligent performance of the Services and MassDevelopment's oversight of the Consultant Team.

(d) As necessary, the Recipient shall promptly review and comment upon the Consultant Team's work product.

(e) The Recipient shall provide MassDevelopment and the Consultant Team with a single point of contact (the "Point Person", identified below) who shall be responsible for: (i) providing any and all assistance as may be reasonably required; (ii) providing access to the Site; (iii) providing plans, maps, by-laws, rules, regulations, votes, data and other documentation regardless of form, and any other information reasonably requested; (iv) attendance at and facilitation and sponsorship of meetings, hearings, etc., as may be reasonably requested, including, without limitation, any necessary advertising and coordinating; (v) working with and seeking the cooperation of private property owners; (vi) working with third-party consultants or other parties providing services pursuant to this Agreement; and (vii) providing prompt review and comment on any deliverables, as may be necessary. The Point Person for the Recipient shall be: Jeff Daley, President/CEO. Notwithstanding the above, those records which are voluminous may be made available to the Consultant Team in the Recipient's office(s) during normal business hours.

(f) The Recipient shall reimburse MassDevelopment for the Disbursed Funds as follows:

(i) If the Site or any portion thereof is sold, conveyed, gifted, demised, ground leased, otherwise transferred, or refinanced, and as a result, Recipient, or any affiliate, receives funds that exceed the aggregate amount necessary for repayment of existing monetary liens, mortgage loans, and other debt on the Project and all of the costs incurred by them in the acquisition, development, ownership, and sale of the Site or of the portion of the Site transferred (the "Net Proceeds"), then Recipient shall reimburse MassDevelopment the full amount of the Net Proceeds, in an amount up to the Disbursed Funds. This Section 2(g)(i) shall only apply from the Effective Date established above through 11:59 P.M. on the date 30 years thereafter, but shall survive the earlier expiration or termination of this Agreement.

(g) The Recipient hereby promises to repay the Disbursed Funds in accordance with the foregoing terms and conditions. Recipient further agrees to execute and enter into any and all documents that reaffirm the terms and conditions of this section, as reasonably requested by MassDevelopment, and as relates to the Disbursed Funds and any accrued interest thereon and Recipient's obligations hereunder. Attached hereto as **Exhibit B** is a copy of the letter of support from the Town of Ludlow articulating the Project's public purpose or benefit.

3. Project Personnel. Both MassDevelopment and the Recipient have designated the following persons to serve as Project Manager to support effective communication between MassDevelopment and the Recipient and to report on the Project's progress:

For MassDevelopment:	For Recipient:
Name: Amanda Gregoire	Name: Jeff Daley
Telephone: (617) 330-2073	Telephone: (413) 593-1386
Email: agregoire@massdevelopment.com	Email: j.daley@westmassdevelopment.com

4. Term. The term of this Agreement shall commence upon the Effective Date established above and shall expire at 11:59 P.M. on the date 30 years thereafter.

5. Survival. The provisions of this Agreement, which expressly or by their nature survive expiration or termination of this Agreement will remain in effect after the termination of this Agreement.

6. Compliance with Laws. In connection with this Agreement, MassDevelopment shall, and shall require all of its employees, contractors, and agents to, comply with all federal, state, and local laws, regulations, rules, ordinances, and orders of any kind which are applicable to MassDevelopment's performance of the Services.

7. MassDevelopment Liability.

(a) In no event shall MassDevelopment be held liable with respect to:

(i) any contract entered into with a third party by the Recipient relating to the subject matter of this Agreement or otherwise;

(ii) any recommendations, proposals, suggestions, comments, or actions taken or omitted in connection with this Agreement, unless MassDevelopment is grossly negligent; or

(iii) any work performed by any contractor as part of the Services provided under this Agreement.

(b) MassDevelopment shall have no obligation to perform, or have performed, any work described in the Services with internal staff resources, nor shall MassDevelopment be obliged to incur any costs if the Recipient shall unreasonably fail to provide MassDevelopment with material information necessary to deliver the work described in the Services.

(c) MassDevelopment shall have no obligation to perform, or have performed, any particular work described in the Services if it determines, in its sole discretion, that doing so is beyond the scope of this Agreement or is otherwise unadvisable or impractical.

8. Assignability. The parties agree not to assign any rights or interests arising under this Agreement, or make any person a third-party beneficiary of this Agreement, without obtaining, on each occasion, the prior written consent of the other party, which consent may be withheld for any reason or for no reason, in such party's sole and absolute discretion. Any impermissible assignment shall be null and void.

9. Nature of Relationship; Independent Contractor.

(a) The parties acknowledge that MassDevelopment is providing services solely for public purposes as set forth herein and that no agency, partnership, joint venture or other ownership relationship is intended to be or is created by this Agreement, and, except as is expressly set forth herein, MassDevelopment shall act as an independent contractor pursuant to this Agreement.

(b) MassDevelopment's participation in this Agreement in no way obligates any further action or financial assistance by MassDevelopment with respect to the Project or the Recipient.

(c) MassDevelopment understands that it has no authority to make or imply any commitments which are binding upon the Recipient.

(d) The parties understand and agree that the ultimate feasibility or economic viability of the Project, or any other project arising out of this Agreement is not being guaranteed or assured by MassDevelopment or the Recipient. Notwithstanding the foregoing, the parties acknowledge

they have a special relationship with a duty of loyalty and a duty to act in good faith toward each other.

10. Notices. All notices shall be in writing and shall be deemed given when delivered by hand or when deposited in the United States Postal Service via certified or registered first class mail, return receipt requested, or via overnight delivery with confirmation of process and shall be addressed as follows:

To MassDevelopment:	Massachusetts Development Finance Agency 99 High St, 11th Floor Boston, Massachusetts 02110 Attention: Ed Starzec
With a copy to:	Massachusetts Development Finance Agency 99 High St, 11th Floor Boston, MA 02110 Attention: General Counsel
To the Recipient:	Westmass Area Development Corporation One Monarch Place, Suite 1350 Springfield, Massachusetts, 01144 Attention: Jeff Daley, President/CEO

Either party may change any of its notification information for the purpose of this section by giving the other party prior notice thereof in accordance herewith.

11. Termination.

a. This Agreement may be terminated:

i. At any time, upon the mutual written agreement of MassDevelopment and the Recipient;

ii. At the option of MassDevelopment, for any reason or no reason, upon no less than 60-days' written notice to the Recipient; or

iii. By either MassDevelopment or the Recipient, upon the other party's failure to perform or observe any of its obligations under this Agreement (a "Default"), after a period of 30 days or the additional time, if any, that is reasonably necessary to promptly and diligently cure such failure, after such defaulting party receives notice from the non-Defaulting party setting forth in reasonable detail the nature and extent of the failure and identifying the applicable provisions of this Agreement.

b. Upon notice of a Default under this Agreement, the non-defaulting party shall have no further obligation to the defaulting party under this Agreement until and unless the default is cured.

c. Upon an event of Default under this Agreement beyond any applicable grace period, this Agreement shall be terminated. In the event of such termination, MassDevelopment shall pay the Consultant Team for any unpaid amounts of their respective pro rata shares.

12. Publicity. Each of the parties agree not to make, issue, or cause to be made, press releases or other publicity concerning this Agreement or the Project, without the prior consent of the other parties.

13. Exculpation. There shall be absolutely no personal liability on the part of MassDevelopment or the Recipient or on the part of any of its/their employees, agents, subcontractors, invitees or guests for monetary damages with respect to terms, covenants, and conditions of this Agreement; this exculpation of personal liability is to be absolute and without exception.

14. Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the Commonwealth of Massachusetts without regard to its conflict-of-law rules.

15. Entire Agreement. This Agreement supersedes all earlier letters, conversations, purchase orders, proposals, memoranda and other written and oral communications, and it contains all the terms agreed on by the parties, with respect to the subject matter hereof, and no changes in, additions to, or subtractions from, this Agreement will be binding on the parties unless in writing and signed by MassDevelopment and the Recipient.

16. Limitation of Rights. Nothing contained herein shall be construed to confer upon any person other than the parties hereto any rights, remedies, privileges, benefits, or causes of action to any extent whatsoever.

17. Authority to Enter Agreement. Each signatory to this Agreement represents and warrants to the other that it has full power, and has taken all necessary action, to authorize the execution, delivery, and performance of this Agreement, and this Agreement constitutes the legal, valid, and binding obligation of such party enforceable in accordance with its terms.

18. Severability. If any term or provision of this Agreement or the application thereof to any circumstance shall be invalid or unenforceable the remainder of this Agreement or the application thereof to any circumstance other than that to which it is invalid or unenforceable shall not be affected thereby.

19. Counterparts: Electronic Execution. This Agreement may be executed in any number of counterparts and by different parties and separate counterparts, each of which when so executed and delivered, shall be deemed an original, and all of which, when taken together, shall constitute one and the same instrument. Delivery of an executed counterpart of a signature page to this Agreement by electronic means shall be as effective as delivery of a manually executed counterpart of this Assignment. Any party delivering an executed

counterpart of this Agreement by electronic means also shall deliver a manually executed counterpart of this Agreement, but the failure to deliver a manually executed counterpart shall not affect the validity, enforceability, and binding effect of this Agreement.

20. Dispute Resolution. The parties agree to use their respective best efforts to resolve any dispute(s) that may arise regarding this Agreement. Any dispute that arises under or with respect to this Agreement that cannot be resolved in the daily management and implementation of this Agreement shall in the first instance be the subject of informal negotiations between the [*Identify the Corporate Official*] and the Executive Vice President-Real Estate for MassDevelopment, who shall use their respective best efforts to resolve such dispute. In the event that the parties cannot resolve a dispute by such informal negotiations, the parties agree to submit the dispute to mediation. Within 45 days following the date on which the dispute was first identified, the parties shall propose and agree upon a neutral and otherwise qualified mediator. In the event that the parties fail to agree upon a mediator, the parties shall request the American Arbitration Association to appoint a mediator. The mediation shall be conducted in accordance with the commercial arbitration rules of the American Arbitration Association. The parties shall be responsible for equal shares of the costs associated with locating and obtaining the services of a mediator (the "Mediation Costs"). The period for mediation shall commence upon the appointment of the mediator and shall not exceed 30 days, unless such time period is modified by mutual agreement. In the event that (i) the actual Mediation Costs exceed $5,000 per party, or (ii) the period for mediation exceeds the 30-day period specified above, then either party shall have the option to withdraw from all mediation proceedings without penalty, and the parties may seek redress in whatever forum may be available to them under applicable law. Notwithstanding the foregoing, in the event that the nature of the parties' dispute is such that one or both parties are likely to suffer irreparable harm, such party or parties may seek immediate judicial relief without resorting to the mediation process described above.

[*THE REMAINDER OF THIS PAGE IS LEFT INTENTIONALLY BLANK. THE NEXT PAGE IS THE SIGNATURE PAGE.*]

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed by their duly authorized representatives as of the day and year first set forth above.

Approved as to Form
Agency Counsel

MASSACHUSETTS DEVELOPMENT FINANCE AGENCY

By: _____

Name: Robert M. Ruzzo

Title: Deputy Director/COO

WESTMASS AREA DEVELOPMENT CORPORATION

By: Jeffrey R. Daley

Name: Jeffrey R. Daley

Title: President & CEO